

Application Serial No. 10/660,391
Office Action dated February 4, 2004
Response dated June 18, 2004

Listing of the Claims:

1. (currently amended) A filtering apparatus, comprising an inlet channel for flow to be filtered, an outlet channel for filtered flow, a number of parallel filtering elements, into which flow to be filtered may be directed so that infiltration occurs through a jacket of an element, and at least one rotating washing organ connecting alternately to the different elements for forming a discharge channel for backflushing of the elements generated with the pressure of the filtered flow; and a freewheel clutch connected to a rotating axle of the washing organ, wherein the clutch converts reciprocating movement generated with and maintained by pressure of the flow in the apparatus and alternating lower pressure into a continuously parallel, stepping rotary movement of the axle, wherein in the apparatus includes channels and related control valves for coupling the pressure of the filtered flow and the lower pressure alternately to different sides of the piston without operator intervention.
2. (previously amended) The apparatus according to claim 1, wherein the freewheel clutch comprises a coupling organ driving the rotating axle of the washing organ, which is alternately in sliding contact with the axle and which alternately locks into the axle for rotating the axle, the said coupling organ being articulated to a piston reciprocating on the alternating pressure.
3. (cancelled).
4. (currently amended) The apparatus according to claim [3] 1, wherein the pressure in the discharge channel of the backflushing flow is coupled as counterpressure for the pressure of the filtered flow.
5. (original) The apparatus according to claim 1, wherein the filtering elements are cylindrical and arranged on one or several circumferences surrounding the rotating axle of the washing organ.

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6. (original) The apparatus according to claim 5, wherein the washing organ consists of one or more tubular washing arms transverse to the rotating axle and connecting alternately to the ends of different filtering elements
7. (original) The apparatus according to claim 1, wherein the apparatus includes two or more washing organs connected to the same rotating axle for simultaneous backflushing of two or more filtering elements.
8. (original) The apparatus according to claim 7, wherein the apparatus comprises a washing organ at both ends of the parallel filtering elements, and that the washing organs are made as one piece with the rotating axle.
9. (original) The apparatus according to one claim 1, wherein the apparatus is adapted for filtering a fuel or luboil filter of a motor, especially a luboil filter of a diesel motor.
10. (currently amended) A method for washing filtering elements in a filtering apparatus, which comprises an inlet channel for flow to be filtered, an outlet channel for the filtered flow, and a number of parallel filtering elements, into which the flow to be filtered is directed so that infiltration occurs through an element jacket, in which method the washing is achieved by connecting different elements alternately to a rotating washing organ so that the washing is carried out as backflushing directed to the washing organ with the pressure of the filtered flow, and a rotating axle of the washing organ is rotated in a stepping manner continuously in the same direction using a reciprocating mechanism, the reciprocating movement of which is generated with and maintained by the pressure of the flow prevailing in the apparatus and alternating lower pressure, wherein the reciprocating mechanism reciprocates without operator intervention.

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11. (original) The method according to claim 10, wherein the axle of the washing organ is rotated with the pressure of the filtered flow and with the lower pressure alternating with the filtered flow pressure.
12. (previously amended) The method according to claim 10, wherein the steps of the washing organ are generated with a freewheel clutch, comprising a coupling organ driving the rotating axle of the washing organ, the coupling organ being alternately in sliding contact with the axle and alternately locking into the axle for rotating the axle, the moving of the said coupling organ being carried out with a piston articulated with the coupling organ, the piston being moved back and forth by connecting pressures of different elements alternately to different sides of the piston.
13. (currently amended) A filtering apparatus, [The apparatus according to claim 1,] comprising an inlet channel for flow to be filtered, an outlet channel for filtered flow, a number of parallel filtering elements, into which flow to be filtered may be directed so that infiltration occurs through a jacket of an element, and at least one rotating washing organ connecting alternately to the different elements for forming a discharge channel for backflushing of the elements generated with the pressure of the filtered flow; and a freewheel clutch connected to a rotating axle of the washing organ, wherein the clutch converts reciprocating movement generated with and maintained by pressure of the flow in the apparatus and alternating lower pressure into a continuously parallel, stepping rotary movement of the axle, further including means for providing the reciprocating movement without operator intervention.
14. (previously added) The apparatus as in claim 13, further including valve means for controlling flow to the reciprocating means, wherein the clutch is in operative engagement with the valve means during movement of the clutch.
15. (previously added) The apparatus as in claim as in claim 14, wherein the clutch

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includes at least one arm for operatively engaging the valve means.

16. (currently amended) A filtering apparatus, [The apparatus according to claim 1,] comprising an inlet channel for flow to be filtered, an outlet channel for filtered flow, a number of parallel filtering elements, into which flow to be filtered may be directed so that infiltration occurs through a jacket of an element, and at least one rotating washing organ connecting alternately to the different elements for forming a discharge channel for backflushing of the elements generated with the pressure of the filtered flow; and a freewheel clutch connected to a rotating axle of the washing organ, wherein the clutch converts reciprocating movement generated with and maintained by pressure of the flow in the apparatus and alternating lower pressure into a continuously parallel, stepping rotary movement of the axle, further including a reciprocating mechanism and valve means controlling the reciprocating movement of the reciprocating mechanism, the clutch operatively engaging the valve means during movement of the clutch to direct the pressure of the filtered flow and the lower pressure alternately to different sides of the reciprocating mechanism without operator intervention.

17. (previously added) The apparatus according to claim 3, wherein the clutch is in operative engagement with the control valves during movement of the clutch, and wherein the control valves direct the pressure of the filtered flow and the lower pressure to respective sides of the piston when the clutch engages one of the control valves, and to opposite respective sides of the piston when the clutch engages another of the control valves.

18. (previously added) The apparatus as in claim 17, wherein the clutch includes at least one arm for operatively and alternately engaging the control valves.

19. (cancelled)

20. (new) A method for washing filtering elements in a filtering apparatus, [The method according to claim 10,] which comprises an inlet channel for flow to be filtered, an outlet channel for the filtered flow, and a number of parallel filtering elements, into

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which the flow to be filtered is directed so that infiltration occurs through an element jacket, in which method the washing is achieved by connecting different elements alternately to a rotating washing organ so that the washing is carried out as backflushing directed to the washing organ with the pressure of the filtered flow, and a rotating axle of the washing organ is rotated in a stepping manner continuously in the same direction using a reciprocating mechanism, the reciprocating movement of which is generated with and maintained by the pressure of the flow prevailing in the apparatus and alternating lower pressure, wherein the reciprocating mechanism moves the clutch in one direction into operative engagement with control means, the control means then redirecting the pressure of the filtered fluid and the lower pressure to alternate sides of the reciprocating mechanism to cause the clutch to move in an opposite direction and again into operative engagement with the control means.

21. (previously added) The method assembly according to claim 12, wherein the clutch engages a control valve, during movement of the clutch, and wherein the control valve directs the pressure of the filtered fluid and the lower pressure to alternate sides of the piston to cause the piston to reciprocate without operator intervention.